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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/622,353	09/12/2000	John A. Arbuckle	0457-PCT-US	4766

7590

12/04/2001

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EXAMINER

TUNG, JOYCE

ART UNIT

PAPER NUMBER

1656

DATE MAILED: 12/04/2001

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.
09/622,353

Applicant(s)
Arbuckle et al.

Examiner
Joyce Tung

Art Unit
1656



-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136 (a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on Sep 21, 2001.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11; 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above, claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-20 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claims _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are objected to by the Examiner.
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. § 119

- 13) ☐ Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d).
- a) ☐ All b) ☐ Some* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

*See the attached detailed Office action for a list of the certified copies not received.

- 14) ☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).

Attachment(s)

- 15) ☐ Notice of References Cited (PTO-892)
- 16) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 17) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s). _____
- 18) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 19) ☐ Notice of Informal Patent Application (PTO-152)
- 20) ☐ Other: _____

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Response to Amendment

1. The amendment filed 9/21/2001 has been entered.
2. Regarding the rejections under 35 U.S.C 112, second paragraph in section 4(a)-(b), (d)-(e) and (g) are withdrawn because of the amendment and the rejections in section 4© and (f) are maintained because the language "said preliminary amplification" is unclear where the language is referred from.
3. Regarding the rejection of claims 1, 4-8, 10-13, 15-16 and 18-21 under 35 U.S.C. 103 over Straus et al., in view of Lindemann et al., Walbot et al. and Briggs et al., the response argues that the date of Straus et al. is March 1990 while the effective filing date of the present application is February 17, 1998 and accordingly the reference of Straus et al. is not a proper reference cited. However, the reference is a proper reference.

In addition, the response argues that Strau et al. disclose a subtractive hybridization, while the instant invention is not a subtractive hybridization. However, the steps of instant invention have the steps of the method of Strau et al.. The response further argues that the reference of Strau et al. teach away from the use of adapters prior to isolation procedure as is done in the claimed invention. Actually, the method of Strau et al. has the same steps of using the adapters prior to isolation procedure as claimed (See claims 1, steps a)-e) and claim 15, steps a)-c) and See pg 1889 of the references, the Abstract).

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The response also argues that Lindemann et al. do not teach the direct and specific amplification of a genetic sequence as claimed, but the teachings of Lindemann et al. suggest that the primer is nested as recited in step (e) of claim 1 and step (d) of claim 15 and the oligonucleotide of Lindemann et al. has the same function as the recited adapter in steps (d)-(e) of claim 1 and steps (c)-(d) of claim 15 and claim 10.

The response argues that Walbot et al. merely teach a probe to the transposable element *Mu*. This suggests that a primer which is specific to the transposable element will be made for polymerase chain reaction as used in step e) of claim 1.

The response argues that Briggs et al. teach the method for determining the function of a gene of known sequence using a primer complementary to the TIR of a transposable elements and a primer complementary to the gene of known sequence. The claims language do not indicate that the target genetic sequence is known or unknown. Thus, Applicant's arguments filed 9/21/2001 have been fully considered but they are not persuasive. Therefore, the rejection is maintained.

4. Claims 1, 4-8, 10-13, 15-16 and 18-21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Straus et al. (Proc. Natl. Acad. Sci. USA, 1990, Vol. 87, pg. 1889-1893) in view of Lindemann et al. (5,958,738), Walbot et al. (Mol. Gen. Genet., 1988, Vol. 211, pg. 27-34) and Briggs et al. (5,962,764).

5. Regarding the rejection of claim 2 under 35 U.S.C. 103(a) over previously cited references and further in view of Grunder et al., Grunder et al. disclose that cosegregation

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analysis was performed to test for correlations between blood pressure and different genotypes via identifying polymorphisms of the genes. (See pg. 173, column 1, third paragraph and first paragraph). This suggests the limitations of claim 2. Thus, the rejection is maintained.

6. Claim 2 is rejected under 35 U.S.C. 103(a) as being unpatentable over Straus et al. (Proc. Natl. Acad. Sci. USA, 1990, Vol. 87, pg. 1889-1893) in view of Lindemann et al. (5,958,738), Walbot et al. (Mol. Gen. Genet., 1988, Vol, 211, pg. 27-34) and Briggs et al. (5,962,764) as applied to claims 1, 4-8, 10-13, 15-16 and 18-21 above, and further in view of Grunder et al. (J. of Hypertension, 1997, Vol. 15(2), pg. 173-179).

7. Regarding the rejections of claims 3 and 14 under 35 U.S.C. 103(a) over the references previously cited in the initial 103(a) rejection and further in view of Halverson et al., the response argues that Halverson et al. disclose bulked segregant analysis in which the primer used is labeled. However, the claim language claims that step(f) comprises using bulked segregant analysis which can involve a labeled primer because the language "comprises" can include any steps as needed to fulfill the method. Thus the rejection is maintained.

8. Claims 3 and 14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Straus et al. (Proc. Natl. Acad. Sci. USA, 1990, Vol. 87, pg. 1889-1893) in view of Lindemann et al. (5,958,738), Walbot et al. (Mol. Gen. Genet., 1988, Vol, 211, pg. 27-34) and Briggs et al. (5,962,764) as applied to claims 1, 4-8, 10-13, 15-16 and 18-21 above, and further in view of Halverson et al. (5,707,809).

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9. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the mailing date of this final action.

10. Any inquiries concerning this communication or earlier communications from the examiner should be directed to Joyce Tung whose telephone number is (703) 305-7112. The examiner can normally be reached on Monday-Friday from 8:00 AM-4:30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Gary Jones can be reached at (703) 308-1152.

Any inquiries of a general nature or relating to the status of this application should be directed to the Chemical/Matrix receptionist whose telephone number is (703) 308-0196.

11. Papers related to this application may be submitted to Group 1600 by facsimile transmission. Papers should be faxed to Art Unit 1656 via the PTO Fax Center located in Crystal

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Mall 1 using (703) 305-3014 or 308-4242. The faxing of such papers must conform with the notice published in the Official Gazette, 1096 OG 30 (November 15, 1989).

Joyce Tung

November 28, 2001

A handwritten signature in black ink, reading "E Campbell". The "E" is stylized with a large loop, and "Campbell" is written in a cursive script.

**EGGERTON A. CAMPBELL
PRIMARY EXAMINER**